AMERICAN CYANAMID COMPANY PIGMENTS DIVISION PINEY RIVER PLANT

January 9, 1969

To:

Piney River Office

Copy To:

Mr. J. F. Hopkins

Mr. J. M. McConaghy

Att'n. Of:

Mr. S. A. Lamanna

Subject:

Dilution of 98% H₂SO₄ with Recovered Actd

with Recovered Action to form 93% Acid

It has been proposed 98% H₂SO₄ be diluted with Recovered Acid to produce 93% acid for use at Digestion. It is recommended three new tanks and a heat exchanger be installed at Digestion for mixing 93% acid, storage of 93% acid, storage of Recovered Acid, and cooling 93% acid.

The No. 1 400 Ton Acid Storage Tank at the Acid Plant can be used to store 98% H₂SO₄ with the installation of a small steam heating coil to keep the 98% acid from freezing during the winter. A new pipeline would be installed from the 400 Ton Acid Storage Tank to Digestion where it would enter the new 25,000 gallon Mixing Tank. The heat exchanger would remove the heat of dilution evolved when the 98% H₂SO₄ was diluted to 93%. The heat exchanger could be the same type as is presently used in the Acid Plant which uses raw water for cooling. A new Recovered Acid Storage Tank and a new 93% Acid Storage Tank are necessary at Digestion to protect against acid production delays.

Richard L. Bennett

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RLB/jes

200087

Attachment

HOSON WITH TO FORM 939 DILUTION O RECOVERED F 98 ACID TO NEW POLYESTER
RECOVERSO
ACID STORAGE
TANK 2/4 DAYS @ 20% 15,000 GALLONS 134 DAYS @ 50% COOLING WATER churgek Heh*t* MIXING TANK AT DIGESTION New Steel 25,000 GAL. TANK AT DIGESTION AGITATED PASA ACID STORAGE 50,000 GALLONS 2 1/4 DATYS @ 50% 234 DAYS @ 7090 9 tors 50% { 190 GPM 190 FT² 115GPW 65 GPM MO GAW 20% PRAM 250 GPM 235 FT² 50 GPM NOGPM SOGPIM 50% Se Se P STERM TRACED AND SLOPED CA. (350 FT. LONG 2 HOURS 4 HOURS 2 Hours HOUR HEAT EXCHANGER PUMP OUT AND CIRCULATE PUMP REC ACID DURINGT DO STEAM HEATING COIL TO # 1 400 TON AC(0 25' DIA, X 18' HIGH 43/4 DAYS @ 707 MAINTAIN ACID AT 40°F PUMP 95% STORAGE TANK EGODO GALLONS 3 % DAYS @ 50 % 98 % ACID 200088